How Our Region Differs

BY JAMES DISALVO AND RYAN JOHNSTON

The banking industry has undergone a sea change in the last 30 years. Regulatory changes and technological advances have led to dramatic increases in the size and market share of large banks, while banks have shifted their activities notably away from commercial lending toward real estate lending. While these broad trends are true of banks in the Third District served by the Federal Reserve Bank of Philadelphia, our regional banking market also differs in some interesting ways. Our small regional banks are larger and concentrate much more heavily on residential real estate lending and less on commercial lending than small banks in other regions around the nation do. Our region's banking markets are also significantly more *integrated* — that is, they face much more competition from banks headquartered outside the market — than markets elsewhere. Why do banks in our region differ in these ways? What regional market forces are bankers here responding to? Before we narrow down the possibilities, it will help to understand the extent of these regional differences and how much the wider banking world has changed.

SOME SIMILAR CHANGES FOR LARGE AND SMALL BANKS...

Bank balance sheets reflect major changes in banks' role in the financial system over the last three decades. First, their loan portfolios have shifted dramatically toward real estate lending. Real estate loans as a percent of total loans have nearly doubled at large banks, and they have increased substantially at small banks as well. The explosion of real estate lending in the last three decades is also reflected in banks' securities holdings, which have shifted from Treasury securities to mortgage-backed securities at both large and small banks.[1] This shift is primarily due to the growth of securitization — the packaging of numerous loans into a single security — as the dominant process for financing home loans.[2] Banks hold mortgage-backed securities sold by other banks, as do other financial institutions.

At the same time, the percentage of commercial and consumer loans has decreased.[3] The decline in commercial loans is partly due to the growth of nonbank alternatives to bank finance such as the junk bond market and, more recently, the increasing share of large bank loans that are ultimately held by nonbank intermediaries such as mutual funds and hedge funds.[4]

Finally, all banks are carrying more capital, as shown by their equity-to-assets ratios. This increase has been driven mainly by tighter regulations as new laws and international agreements such as the Basel Accords have expanded capital requirements for banks.[5]

...BUT SIGNIFICANT DIFFERENCES REMAIN

Large banks have captured an increasing share of banking markets.[6] Since 1984, the market share of the top 10 banks has increased from just over 17 percent to 55.2 percent.[7] This increased concentration has been even more pronounced in our region.[8] In the tristate area, the market share of the top 10 firms increased from 2.7 percent

James DiSalvo *is a banking structure specialist and* **Ryan Johnston** *is a banking structure associate in the Research Department of the Federal Reserve Bank of Philadelphia.*

to nearly 70 percent. At the same time, small banks' share of deposits has shrunk from over half in both the nation and the region to 18.5 percent in the nation and 10.5 percent in the tristate area (Figure 1).

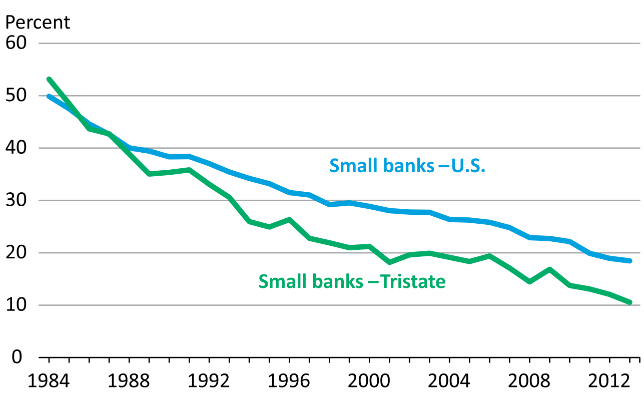
Small banks do substantially more real estate lending as a percent of total loans than large banks do, with a much higher percentage devoted to commercial real estate.[9] Small banks also have a much lower percentage of their total loans in commercial and industrial loans, although the decline in commercial lending over the last 30 years has been particularly dramatic at large banks. Interestingly, small banks' share of small business loans has remained at roughly 40 percent, even as their share of assets has declined from almost half to just above 20 percent of assets (Figure 2).

Small banks have long been found to have a comparative advantage in lending to small businesses because they maintain relationships that rely on soft information about firms and their business environment that is difficult to measure, such as knowing how effectively a business owner responds to problems based on a long history of doing business with the firm.[10] Considering the predominance of commercial real estate loans in community bank loan portfolios, small community banks' detailed knowledge of local real estate markets may now be a more important source of comparative advantage in financing commercial real estate.

FIGURE 1

Small Banks Have Lost Market Share…

Share of deposits, 1984–2013.

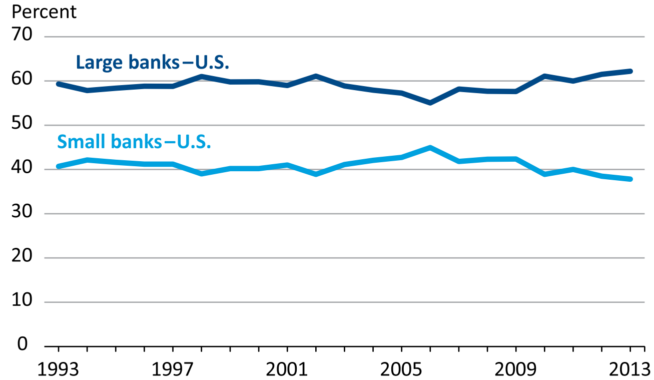


Sources: Federal Financial Institutions Examination Council Call Reports (U.S.), Federal Deposit Insurance Corporation Summary of Deposits (tristate).
Notes: The *tristate* area consists of Pennsylvania, New Jersey, and Delaware. *Small tristate banks* are defined as those based in the tristate area that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. *Small U.S. banks* are defined as those based outside the tristate area that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries.

FIGURE 2

…But Are Still Important Small Business Lenders

Share of small business loans, 1993–2013.



Source: Federal Financial Institutions Examination Council Call Reports, Schedule RC-C Part II, reported annually in the second quarter.
Notes: *Large U.S. banks* are defined as banking organizations such as bank holding companies that are ranked in the top 100 in banking assets in that year, including assets of only their commercial bank subsidiaries. Large banks typically operate in multiple regions. *Small U.S. banks* are defined as those based outside the tristate area that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries.

Small banks' funding mix is also different from that of large banks. Although small banks continue to rely more heavily on deposits than large banks do, small banks' share of the most stable deposits, known as core deposits, has declined dramatically, particularly from 2004 to 2013 (Table 1).[11] With a lower percentage of core deposits, banks are forced to seek out less stable and therefore more expensive sources of funds. Thus, the relative decline in core deposits has undermined their competitive advantage.

HOW OUR SMALL BANKS DIFFER

There are two striking differences between small banks in our region and those in the rest of the nation. First, our regional banks are much larger. The average tristate area community bank was nearly three times as large as the average in the rest of the country in 1984, and it is still almost twice as large today (Table 2).

More surprising, small banks in our region have consistently dedicated an unusually large share of their loan portfolios to residential real estate lending — over 18 percentage points more than other small banks from 1984 to 1993, over 22 percentage points more from 1994 to 2003, and over 13 percentage points more from 2004 to 2013 (Table 1).

TABLE 1

A Dramatic Shift Toward Real Estate Lending

	Large Banks			Small Banks – U.S.			Small Banks – Tristate		
	1984–1993	1994–2003	2004–2013	1984–1993	1994–2003	2004–2013	1984–1993	1994–2003	2004–2013
Portfolio									
Loans/Assets	62.72	64.29	65.61	51.86	60.03	65.18	58.26	61.60	67.12
Securities/Assets	16.22	20.85	18.92	29.52	26.04	19.38	26.63	27.81	20.11
Percent of Loans									
Real Estate	34.96	50.02	64.63	43.62	57.63	70.98	60.72	76.26	82.94
Residential	12.80	25.82	25.70	13.68	25.88	24.06	32.28	47.07	37.50
Commercial	17.19	20.80	34.27	18.12	26.69	40.86	16.73	25.50	41.50
Commercial & Industrial	31.57	23.52	19.32	16.62	14.27	12.76	13.18	9.91	10.06
Consumer	17.60	12.61	5.53	17.65	11.84	5.41	18.99	8.69	2.20
Credit Cards	3.44	0.93	0.02	0	0	0	0.11	0.17	0
Consumer Loans/Assets*	12.42	11.94	6.93	11.13	7.30	2.99	10.27	7.97	4.31
Credit Cards/Assets*	4.20	4.93	2.69	1.19	1.48	0.37	0.37	0.43	0.14
Percent of Securities									
Mortgage-backed	10.17	35.13	53.22	2.38	6.77	18.43	1.31	14.86	31.82
Treasuries	29.76	7.10	0.28	14.30	6.41	0	16.81	5.65	0
Deposits/Liabilities	78.84	75.89	81.33	98.61	98.13	96.16	98.23	96.08	93.58
Core Deposits/Liabilities	63.71	62.68	59.73	88.87	84.46	75.51	90.77	86.04	75.56
Earnings									
ROAA	0.85	1.23	0.95	0.95	1.11	0.89	1.10	1.10	0.76
Net Interest Margin	3.53	3.63	3.11	4.02	4.02	3.58	3.92	3.82	3.27
Capital									
Total Equity/Total Assets	6.01	8.03	10.16	8.37	9.45	9.89	8.28	9.32	9.35
Deposits/Total Assets	74.22	69.81	72.21	89.69	87.10	85.28	89.12	85.12	83.21

Source: Fourth quarter Federal Financial Institutions Examination Council Call Reports.

Notes: Numbers are the median* percentages for each 10-year period for all commercial banks, including their banking subsidiaries, except (1) bankers' banks, (2) banks less than five years old, (3) nonbank institutions that either make commercial loans or accept demand deposits but do not do both, (4) monoline credit card banks, defined as having a state credit card bank charter or having more than 50 percent of their loans as credit card loans, (5) wholesale banks, defined as having less than 5 percent of their deposits in time deposits of less than $100,000, money market deposit accounts, other savings deposits, and demand deposits, (6) cash management banks that require a special charter, and (7) depository trust companies.

Large U.S. banks are defined as banking organizations such as bank holding companies that are ranked in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. Large banks typically operate in multiple regions. *Small U.S. banks* are defined as those based outside the tristate area that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. *Small tristate banks* are defined as those based in the tristate area that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. The *tristate area* consists of Pennsylvania, New Jersey, and Delaware. *U.S.* excludes tristate banks.

HOW CAN THESE DIFFERENCES BE EXPLAINED?

While we do not have a complete answer, we can narrow down the possibilities and pose some tentative hypotheses. As to size, one factor may be that Delaware and New Jersey were early adopters of liberal intrastate branching and merger laws, which allowed banks to grow outside their home communities.[12] Population density in our region may also play a role. The region is more urbanized than the nation as a whole, and there is some evidence that small banks in urban areas tend to be larger.[13]

Regarding their greater focus on mortgage lending, we can rule out three hypotheses: First, tristate small banks do not securitize a smaller share of their home mortgages than small banks elsewhere do, so the high percentage of mortgages held in their portfolios does not appear to be the result of selling fewer mortgages into the mortgage-backed securities market. Indeed, small banks in the region securi-

TABLE 2

Community Banks Twice as Large Here

	Large Banks				Small Banks – U.S.				Small Banks – Tristate			
	1984	1993	2003	2013	1984	1993	2003	2013	1984	1993	2003	2013
Number of Organizations	100	100	100	100	10,835	7,902	6,066	5,029	392	283	212	171
Number of Banks	1,251	997	409	188	12,660	9,490	7,030	5,433	427	337	226	175
Number of Branches	17,873	30,559	38,566	51,469	32,899	27,766	30,684	33,205	3,198	2,347	2,009	1,657
Average Organization Size	15,248.2	26,397.5	59,104.7	114,860.1	81.7	115.9	222.2	366.5	216.1	312.6	455.0	665.4
Average Bank Size	1,218.9	2,647.7	14,451.0	61,095.8	69.9	96.5	191.7	339.3	198.4	262.5	426.8	650.2

Sources: Federal Financial Institutions Examination Call Reports and Federal Deposit Insurance Corporation Summary of Deposits.
Notes: Average bank and organization size are in millions of dollars. A *banking organization* is defined as the sum of all of the bank subsidiaries of a bank holding company. *Large U.S. banks* are defined as banking organizations such as bank holding companies that are in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. Large banks typically operate in multiple regions. *Small U.S. banks* are defined as those based outside the tristate area that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. *Small tristate banks* are defined as those based in the tristate area that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. The *tristate area* consists of Pennsylvania, New Jersey, and Delaware. *U.S.* excludes tristate banks.

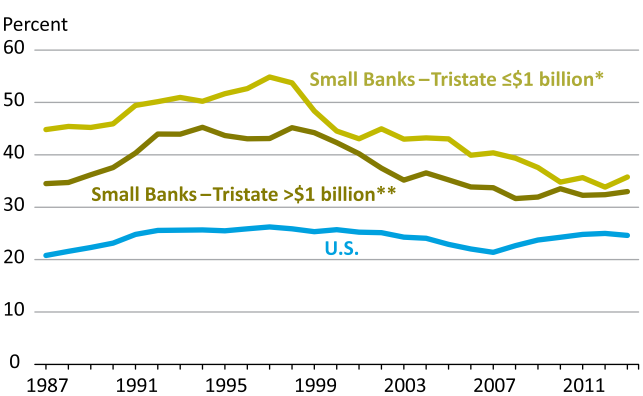
tize more of their home mortgages. Second, the larger size of our community banks is not a factor. When we rank our community banks by size, the smaller ones make even more mortgages than the larger ones do (Figure 3). Third, residential real estate activity as a share of total economic activity is no greater in the region than in the nation. For all banks operating in the region, including both large and small banks, residential real estate lending as a share of total deposits is lower here than in the rest of the nation (Figure 4).[14]

Two distinctive features of our region's banking markets suggest that the explanation may lie in the competitive structure of the market. In 1990, nonbanks — which, despite the name, include savings banks, savings and loans, and mortgage banks — held approximately 20 percentage points less of the residential real estate market in our region than they did in the rest of the nation, with this portion of

FIGURE 3

Higher Percentage of RRE Loans in Tristate Portfolios

Residential real estate loans as a share of total loans.

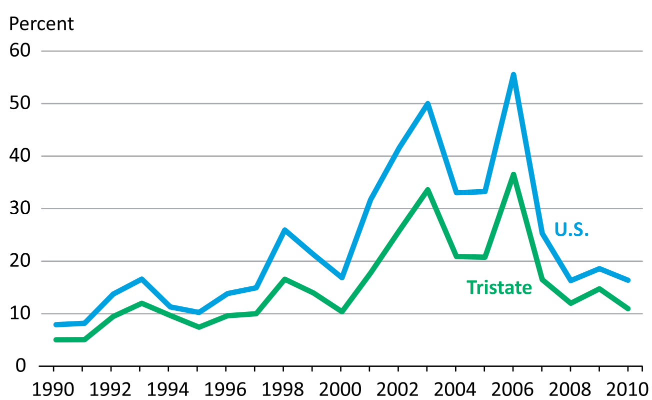


Source: Federal Financial Institutions Examination Council Call Reports.
Notes: The *tristate* area consists of Pennsylvania, New Jersey, and Delaware. *U.S.* excludes tristate banks.
*Those with $1 billion or less in assets, including assets of only their commercial bank subsidiaries.
**Those with more than $1 billion in assets, including assets of only their commercial bank subsidiaries.

FIGURE 4

Residential Lending Is Lower in the Tristate Region

Total HMDA loans as a share of total deposits.

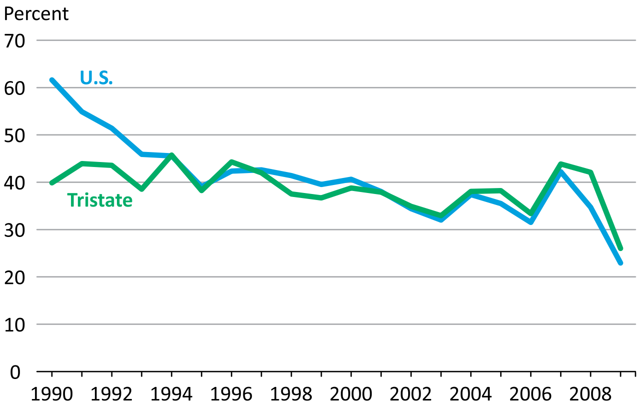


Sources: Home Mortgage Disclosure Act data, Federal Deposit Insurance Corporation Summary of Deposits.
Notes: The *tristate* area consists of Pennsylvania, New Jersey, and Delaware. *U.S.* excludes tristate banks.

FIGURE 5

Until Mid-1990s, Nonbanks Had Smaller Share of Tristate RRE

Nonbanks' share of HMDA loans.

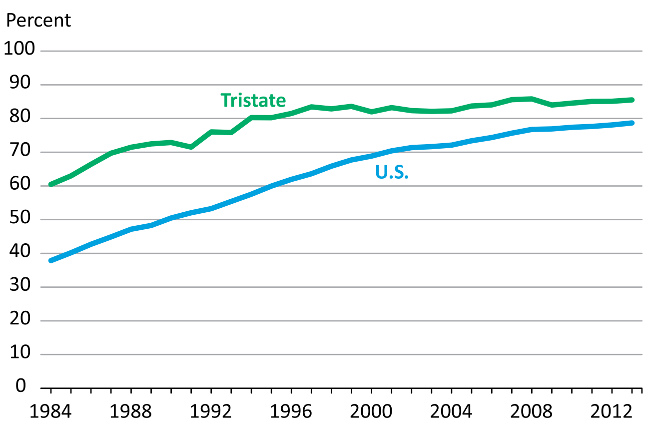


Source: Home Mortgage Disclosure Act data.
Notes: The *tristate* area consists of Pennsylvania, New Jersey, and Delaware. *U.S.* excludes *tristate banks*. *Nonbanks* are defined as credit unions, independent mortgage associations, thrift banks, and their subsidiaries.

FIGURE 6

Banking Markets Are More Integrated in the Tristate Area

Market share of deposits held by out-of-market competitors.



Source: Federal Deposit Insurance Corporation Summary of Deposits.
Notes: The *tristate* area consists of Pennsylvania, New Jersey, and Delaware. *U.S.* excludes tristate banks.

the market shared roughly equally by large and small banks (Figure 5). Although the precise factors behind nonbanks' relatively small share at the beginning of our sample period remain unclear, we take away from these data the conclusion that our small regional banks were specialists in residential real estate lending at a time when these markets were more local and less competitive than they became in the 1990s and 2000s.

Another distinctive feature of the competitive landscape is the extent to which banking markets in our region are integrated and thus the extent to which banks face a wide range of competitors. One measure of integration is the extent to which banks in a local market face competition from banks headquartered outside that market, so called *out-of-market banks*. For example, a bank in the Philadelphia market may face direct competition from a small bank headquartered in Harrisburg or from Bank of America, headquartered in North Carolina. Over the entire sample period, from 1984 to 2013, out-of-market banks had an average market share of about 79 percent in the tristate area market, compared with 63 percent for the rest of the nation (Figure 6).[15] Contributing factors include the presence of several fairly populous metropolitan areas clustered within the tristate region and the early adoption of intrastate branching.[16] The relatively low net interest margins for tristate small banks compared with small banks elsewhere are consistent with this explanation. Thus, there is evidence to suggest that tristate area banks specialize in residential real estate lending at least partly because of the stiffer competition they face in their home markets. ■

NOTES

[1] *Large banks* are defined as banking organizations such as bank holding companies that are ranked in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. Large banks typically operate in multiple regions of the country. *Small banks* — sometimes referred to as *community* banks — are defined as those that are not in the top 100 in banking assets in a given year, including assets of only their commercial bank subsidiaries. We refer to small bank holding companies and banks that are headquartered in Pennsylvania, New Jersey, or Delaware as *tristate* banks.

[2] See Ronel Elul's *Business Review* article for an account of the economics of securitization. Probably most important from the banking industry's standpoint, the deregulation of deposit rates in 1980 and the inflation-driven increases in interest rates in the 1970s and early 1980s increased the *interest rate risk* of holding long-term, fixed-rate assets (mortgages) funded with short-term liabilities (mainly deposits). When interest rates rise, banks' cost of funds rise, while mortgage rates do not, depressing profits. These same factors led to the savings and loan crisis and the continued decline of the S&L industry since the 1990s.

[3] Oscar Jorda, Moritz Schularick, and Alan Taylor found that this is part of a longer-term trend beginning at the end of World War II with expanded bank lending, particularly in mortgages, and much higher household debt.

[4] While the declining share of commercial loans is partly due to the rapid growth in real estate loans, commercial bank loans have declined as a share of business debt finance. Mitchell Berlin's *Business Review* article discusses the relative roles of banks and other intermediaries in the provision of business financing. Vitaly Bord and Joao Santos's article discusses the role of nonbank intermediaries in the syndicated loan market.

[5] Ronel Elul's *Business Review* article on bank capital discusses evolving capital regulation.

[6] Since our primary focus is on community banks, we do not discuss large banks' capital market activities. Although our definition of a small regional bank includes some comparatively large banks — approximately $6.7 billion in assets in 2013 — our account would not change if we used a narrower definition such as banks with less than $1 billion in assets.

[7] Robert DeYoung, William Hunter, and Gregory Udell discuss the role of technological advances and regulatory changes in the relative growth of large banks. Joseph Hughes and Loretta Mester provide empirical evidence for pervasive scale economies in the banking industry.

[8] The Philadelphia Fed oversees the Third District, which includes eastern Pennsylvania, southern New Jersey, and Delaware. However, when we speak of the *tristate area* or the *region*, we include all of Pennsylvania and New Jersey, since banking markets extend well beyond the Third District. See James DiSalvo's recent analysis of Third District banking markets.

[9] Residential real estate lending consists of mortgages on so-called 1–4 family properties — detached single-family homes plus attached homes of two to four units — secured by first or junior liens plus home equity lines of credit. Commercial real estate lending consists of construction loans and loans secured by multifamily (five or more units) properties and by nonfarm, nonresidential properties.

[10] By contrast, large banks have a comparative advantage in making loans based on *hard* information, notably credit scores, which treat small businesses essentially the same as credit card customers. See DeYoung, Hunter, and Udell's discussion of these two lending technologies. However, Allen Berger, William Goulding, and Tara Rice provide evidence that small firms may increasingly gravitate toward the speed and convenience of the hard information lending model.

[11] Core deposits are basically insured deposits minus *brokered* and foreign deposits. The FDIC insurance limit was raised from $100,000 to $250,000 in 2008. Brokered deposits are generally short-term deposits obtained through a third party from a depositor with no other relationship with the bank.

[12] Philip Strahan documents the deregulation of intrastate branching restrictions. Delaware permitted intrastate branching before 1970 (one of 12 early adopters), New Jersey did so in 1977 (earlier than 44 other states), and Pennsylvania followed in 1982 (earlier than 28 other states). Consistent with the view that removing intrastate branching restrictions was important, community bank size in Pennsylvania lagged that of both New Jersey and Delaware until the late 1990s. Community banks in other relatively urbanized states that were early adopters such as California and Maryland are roughly as large as those in our region.

[13] William Bassett and Thomas Brady document this relationship for the first half of our sample period.

[14] We can calculate these numbers for mortgage lending — but unfortunately not for other types of lending — because HMDA data provide the geographic location of all mortgages. The loan numbers are seconded by measures of real economic activity; that is, real estate activities are not a larger share of total gross state product in our tristate area than elsewhere.

[15] A market is defined as either a county or as a metropolitan or micropolitan statistical area (2013 definition). An out-of-market firm is any banking organization not headquartered in the market.

[16] The greater out-of-market competition in our region does not appear to stem from the combination of the proximity of large banks headquartered in New York City and the paucity of large banks headquartered in our region, the situation as of 2013. As Figure 6 shows, the difference between the tristate region and the rest of the nation was greatest at the beginning of our sample period, when banking across state lines was not permitted. As large banks increasingly entered markets in other regions throughout our sample period, banking markets became more integrated nationally, and the difference between our region and the rest of the nation narrowed significantly.

REFERENCES

Bassett, William, and Thomas Brady. "The Economic Performance of Small Banks, 1985–2002," *Federal Reserve Bulletin* (November 2001), pp. 719–728, www.federalreserve.gov/pubs/bulletin/2001/1101lead.pdf.

Berger, Allen, William Goulding, and Tara Rice. "Do Small Firms Still Prefer Community Banks?" *Journal of Banking and Finance*, 44 (July 2014), pp. 264–278.

Berlin, Mitchell. "Banks and Markets: Complements, Substitutes, or Both?" Federal Reserve Bank of Philadelphia *Business Review* (Second Quarter 2012), pp. 1–10.

Bord, Vitaly, and Joao Santos. "The Rise of the Originate-to-Distribute Model and the Role of Banks in Financial Intermediation," Federal Reserve Bank of New York *Economic Policy Review* (July 2012), pp. 21–34.

DeYoung, Robert, William Hunter, and Gregory Udell. "The Past, Present, and Probable Future of Community Banks," *Journal of Financial Services Research*, 25:2/3 (2004), pp. 85–133.

DiSalvo, James. "Third District Banking Market Definitions: 2014 Revision," Federal Reserve Bank of Philadelphia, www.philadelphiafed.org/research-and-data/banking/third-district-markets.

Elul, Ronel. "The Promise and Challenges of Bank Capital Reform," Federal Reserve Bank of Philadelphia *Business Review* (Third Quarter 2013), pp. 23–30.

Elul, Ronel. "The Economics of Asset Securitization," Federal Reserve Bank of Philadelphia *Business Review* (Third Quarter 2005), pp. 15–25.

Hughes, Joseph P., and Loretta J. Mester. "Who Said Large Banks Don't Experience Scale Economies? Evidence from a Risk-Return Driven Cost Function," *Journal of Financial Intermediation*, 4 (2013), pp. 559–585.

Jorda, Oscar, Moritz Schularick, and Alan M. Taylor. "Mortgaging the Future?" Federal Reserve Bank of San Francisco *Economic Letter*, 2015–09 (March 23, 2015).

Keeton, William, Jim Harvey, and Paul Willis. "The Role of Community Banks in the U.S. Economy," Federal Reserve Bank of Kansas City *Economic Review* (Second Quarter 2003).

Strahan, Philip. "The Real Effects of Bank Deregulation," Federal Reserve Bank of St. Louis *Review* (July/August 2003), pp. 111–128.